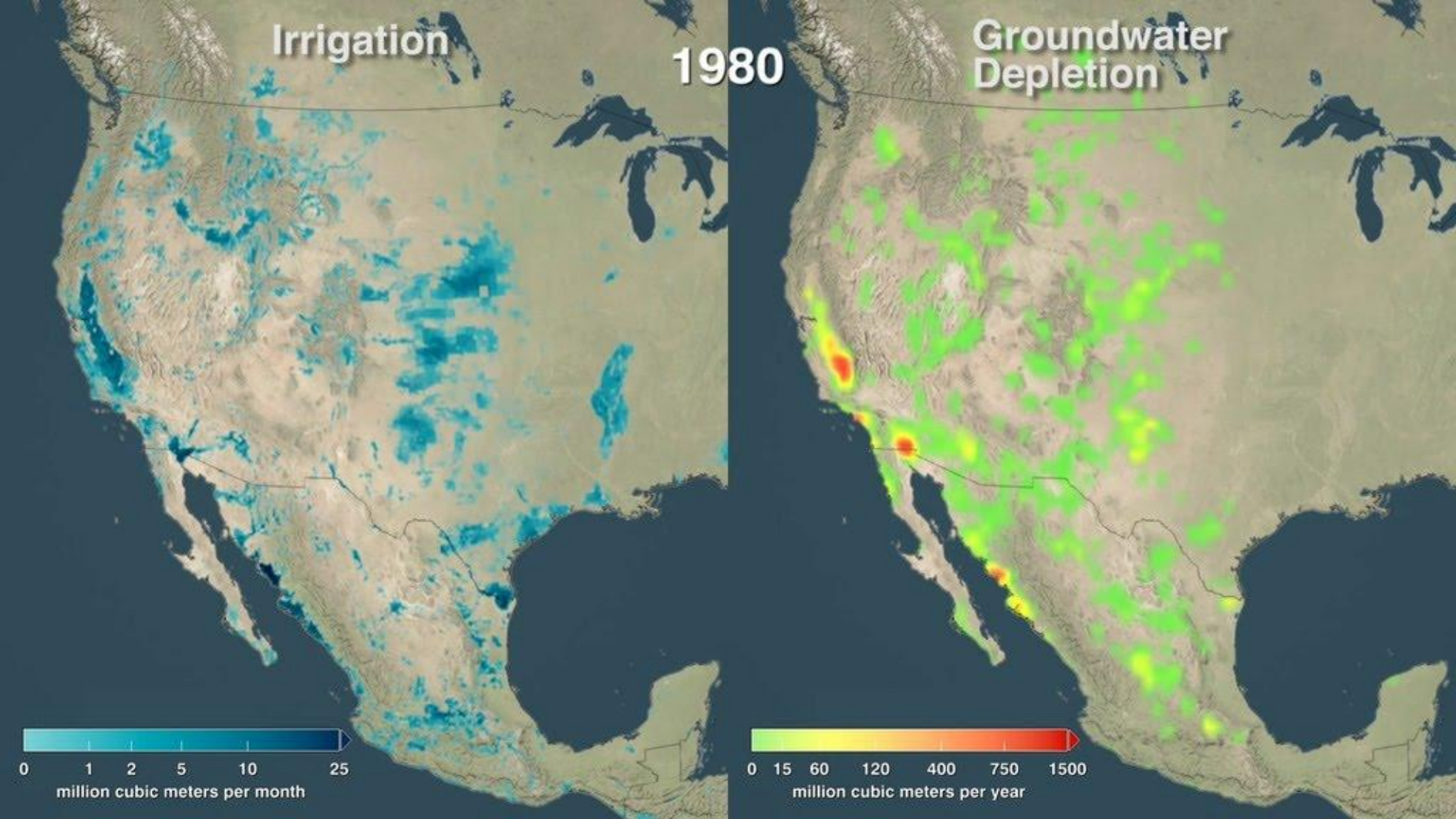
Irrigation
1980
Groundwater Depletion
0 1 2 5 10 25
million cubic meters per month
0 15 60 120 400 750 1500
million cubic meters per year

1
00:00:01,480 --> 00:00:04,640
Between 2000 and 2010, groundwater depletion

2
00:00:04,640 --> 00:00:07,460
caused by irrigation increased 22 percent.

3
00:00:08,700 --> 00:00:12,780
NASA scientists and colleagues used Earth observations and models

4
00:00:12,780 --> 00:00:15,480
to understand where this groundwater depletion is most severe.

5
00:00:16,640 --> 00:00:20,820
The most overexploited aquifers: the North and South Arabian,

6
00:00:20,860 --> 00:00:24,080
Persian, Western Mexico and Upper Ganges,

7
00:00:24,080 --> 00:00:26,980
all show evidence of groundwater depletion from irrigation.

8
00:00:28,800 --> 00:00:32,520
In drier countries like Kuwait, Iran and Saudi Arabia,

9
00:00:32,520 --> 00:00:36,820
crops require extremely large amounts of groundwater-depleting irrigation to grow.

10
00:00:37,980 --> 00:00:43,240
For example, rice grown in Pakistan causes eight times more groundwater depletion per unit

11
00:00:43,240 --> 00:00:46,500
than in India, where surface water resources are more plentiful.

12
00:00:48,580 --> 00:00:51,440
International trade moves these crops between countries,

13
00:00:51,440 --> 00:00:55,980

so in some cases, the countries consuming the most groundwater depletion-linked crops

14
00:00:55,980 --> 00:00:58,920
may have more water supplies, relatively speaking.

15
00:01:00,620 --> 00:01:03,480
However, importers of groundwater depleting-crops

16
00:01:03,480 --> 00:01:07,500
face a potential future food supply risk, as overexploited aquifers

17
00:01:07,540 --> 00:01:10,460
may not be able to continue providing water